

REMARKS

Initially, Applicant thanks the Examiner for indicating that claims 26-33, 41, 4, 5-13, 15, and 18 are allowable. Further, Applicant has amended claims 2-4, 9, 14, 25 and 41, and canceled claim 8, and respectfully submits that the application as amended, is in condition for allowance. Such action is therefore respectfully solicited.

In the Office Action, claims 2 and 3 were objected to because they depend from a cancelled claim. In response thereto, Applicant has amended claims 2 and 3 to make them dependent upon allowable claim 41. Applicant submits that this amendment now places claims 2 and 3 into condition for allowance.

Claims 19-24 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Namely, the Examiner submits that since claims 19 and 20 recite that the locking clip includes "third and fourth surface portions", "[i]t is unclear how the locking clip is intended to have four surfaces because it fails to recite what forms the first and second surface portions." Applicant acknowledges that claims 21-24 depend from claim 19. However, as the Examiner has not specified a reason for the rejection of claims 21-24, Applicant presumes that claims 21-24 are only rejected based upon their dependence on rejected claim 19.

In response to this rejection, Applicant respectfully directs attention to the language of claim 19, where, in part b) it is recited that the second member comprises "...an outer surface including first surface portions and second surface portions...", and in part c) where it is recited that the locking clip includes "...third surface portions and fourth surface portions...". As is seen from the text of the claim, the first and second surface portions are located on the second member,

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while the third and fourth surface portions are located on the locking clip. Therefore, respectfully, claim 19 does not require that the locking clip has four surfaces. Accordingly, claim 20 uses similar terminology. Applicant submits that in view of the above, claims 19-24 are believed to be in condition for allowance.

Still further in the Office Action, claim 14 has been rejected under 35 U.S.C. §103(a) as being obvious over *Schar et al.*, PCT publication no. WO98/46173 ("*Schar*") in view of *Rabbe et al.*, U.S. Patent No. 5,702,453. The Examiner takes the position that *Schar* teaches all the elements of claim 14 with the exception of flanges disposed at an acute angle with respect to the longitudinal axis, and that *Rabbe* teaches angular flanges. Thus, the Examiner posits that it would have been obvious to one of ordinary skill in the art to combine the two references.

In view to this rejection, Applicant amends claim 14 to claim the first member having a polygonal passage, and the second member having a polygonal cross-section, while maintaining that the second member is slidably and telescopingly received in the passage of the first member. The configuration of the claimed first and second members may be such that, for example, their geometries may prevent relative rotation between the first and second members, while allowing sliding and telescoping motion therebetween. Applicant submits that neither *Schar*, nor *Rabbe*, nor *Wu*, U.S. Patent No. 4,553,273 ("*Wu*") either alone, or in combination teach or suggest such a configuration. In fact, all three references only teach cooperating round surfaces between the first and second members. Thus, in view of the amendment of claim 14, and remarks provided herein, Applicant respectfully submits that the §103 rejection

of claim 14 has been obviated, and that claim 14 is in condition for allowance.

In the Office Action, claim 25 has also been rejected under 25 U.S.C. §103(a) as being obvious over *Schar* in view of *Wu*. The Examiner takes the position that *Schar* teaches all the elements of claim 25 with the exception of outer polygonal surfaces on the first member as posited to be taught by *Wu*. The Examiner suggests that it would have been obvious to combine the teachings of *Wu* and *Schar* "to provide polygonal shaping on the outer surface of the prosthesis of *Schar* **in order to enable the surgeon to have a secure grip that enables proper placement [of the prosthesis] in the patient.**" (Emphasis added.)

Applicant agrees with the Examiner that *Wu* teaches a first, or outer member, having a polygonal shape, the purpose of which is to facilitate proper and secure placement of the prosthesis in the patient. Indeed, this is supported in *Wu*'s Figs. 2 and 3 wherein a polygonal cut-out is depicted in the vertebra that is to receive the implant having a mating polygonally shaped outer member. Column 1, lines 59-61 of *Wu*, explain as much: "The recesses 11 [in the vertebral bodies 12 and 13] are non-circular and preferably polygonal as are the cross sections of the blocks 16." Thus, for the purpose of secure placement of the prosthesis within the bones of the patient, the bone-contacting surfaces of the *Wu* prosthesis are polygonally shaped to mate with polygonal cut-outs in the bone.

The bone contacting surfaces of *Schar* are the flanges, or end plates 38 and 39. Consequently, in view of the *Wu* teaching, the combination of *Wu* and *Schar* would result in the flanges, or end plates 38 and 39, of *Schar* having polygonal shapes, and the contacting vertebral bodies having mating polygonal cut-outs.

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Claim 25 requires an outer tubular member with an outer surface having a different cross-sectional shape than a passage in the outer tubular member. For example, in one embodiment, the inner tubular member has a square cross-sectional shape and the outer tubular member has a passage which is square in cross-sections, for receiving the inner tubular member in a telescoping non-rotational arrangement. The outer surface of the outer tubular member is round in cross-sectional shape, in this embodiment, to allow the locking clip to be rotatably mounted on the outer tubular member. However, *Wu* does not disclose a telescoping member. *Wu* teaches a pair of blocks 16 shaped for engaging bone and coupled by a threaded shaft 17. Whereas claim 25 requires telescoping members, *Wu* teaches threadably received parts. The claimed feature of a tubular member with different inner and outer cross-sectional shapes allows a rotatably mounted locking clip and telescoping parts that prevent rotation. As *Wu*'s threaded members require rotation to operate, Applicant submits that the cited references do not teach the claimed invention as a whole. Furthermore, as discussed above, the combined teachings of *Wu* and *Scher* do not result in the claimed invention.

Consequently, Applicant respectfully submits that the combination of *Wu* and *Schar* does not teach the elements of Applicant's claim 25. Respectfully, Applicant therefore submits that the \$103 rejection of claim 25 is obviated, and that claim 25 is in condition for allowance.

Applicant notes that claim 41 has been amended to clarify the functioning of the prosthesis in the locked and unlocked positions. Namely, it is made clear that in the unlocked position, the first and second members are allowed to move in the axial direction with respect to one another, while in the locked position the locking clip engages the second

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member. Additionally, Applicant notes that claim 4 has been amended and made dependent upon claim 3, which itself has been amended to be dependent upon claim 41.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made"**.

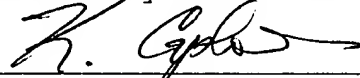
If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: February 14, 2003

Respectfully submitted,

By



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Version With Markings to Show Changes Made

2. (Amended) The corpectomy device of claim ~~1~~41, wherein said locking clip includes at least one depression and said second member includes at least one ridge engagable in said at least one depression for locking said first member and said second member in a relative position with respect to one another.

3. (Amended) The corpectomy device of claim ~~1~~41, wherein said locking clip and said second member include interengaging threads for locking said first member and said second member in a relative axial position with respect to one another.

4. (Four Times Amended) The corpectomy device of claim ~~3~~41 wherein ~~said locking clip and said second member includes interengaging threads for locking said first member and said second member in a relative axial position with respect to one another,~~ said locking clip ~~is being~~ rotatably mounted on said first member for rotation into and out of engagement with said threads.

9. (Amended) The corpectomy device of claim ~~8~~6, wherein said locking clip includes a first bore and said first member includes a corresponding hole, said first bore and hole being engagable by a screw for locking the position of said locking clip in its locked position.

14. (Twice Amended) A corpectomy device, comprising:

a) a first member comprising a hollow member having a longitudinal axis, a polygonal passage, and an outer axial end with an outwardly extending flange including teeth on a surface thereof for engaging bone;

b) a second member moveable in an axial direction with respect to said first member and having a polygonal cross-section and an outer axial end with an outwardly extending flange including teeth on a surface thereof for engaging bone, said second member defining a chamber with said first member and being slidably and telescopingly received in the polygonal passageway of said first member for movement in said axial direction; and

c) a locking clip engagable with said first member and said second member and moveable between a first unlocked position and a second locked position for locking said first member and said second member in a relative axial position with respect to one another;

said flanges being disposed at an acute angle with respect to said longitudinal axis.

25. (Twice Amended) A corpectomy device, comprising:

a) a first member comprising a hollow, outer tubular member having a longitudinal axis and a passage;

b) a second member comprising an inner tubular member moveable in an axial direction with respect to said first member, said second member defining a chamber with said first member and being slidably and telescopingly received in said passage of said first member for movement in said axial direction; and

c) a locking clip engagable with said first member and said second member and moveable between a first unlocked position and a second locked position for locking said first member and said second member in a relative axial position with respect to one another;

said outer tubular member including a wall having an inner surface defining said passage and an outer surface, said outer surface defining a cross-sectional shape different from a

cross-sectional shape of said inner tubular member and said passage.

41. (Twice Amended) A corpectomy device, comprising a first member having a longitudinal axis and a second member, the first member and the second member being movable with respect to one another in an axial direction; and

a locking clip rotatably mounted on the first member and movable between a first unlocked position, ~~in which the locking clip engages the second member, and a second locked position for allowing the first member and the second member to move in the axial direction with respect to one another for~~ allowing the first member and the second member to move in the axial direction with respect to one another, and a second locked position in which the locking clip engages the second member.